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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/818,433      | 03/26/2001  | Michael A. Robinson  | 10003782-2          | 2013             |

7590 12/05/2003

AGILENT TECHNOLOGIES  
Legal Department, 51U-PD  
Intellectual Property Administration  
P.O.Box 58043  
Santa Clara, CA 95052-8043

EXAMINER

PAYNE, DAVID C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2633

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/818,433

**Applicant(s)**

ROBINSON ET AL.

**Examiner**

David C. Payne

**Art Unit**

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Drawings***

1. The drawings are objected to because the components in Figure 2A are not widely recognized symbols and require a suitable legend. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 1-5, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buescher et al. US006396351B1 (Buescher) in view of North US006118829A (North).

Regarding claims 1, 9, 10, 12

Buescher disclosed A fiber optic receiver (Figure 2), comprising: an opto-electronic transducer incorporated within the ROSA and configured to generate an electrical data signal in response to a received optical data signal (photodiode not shown at terminal (34), e.g., col./line: 3/1-10); configured to generate an electrical data signal in response to a received optical data signal; an adjustable response preamplifier (32) circuit coupled to the opto-electronic transducer and operable to amplify an electrical data signal generated by the opto-electronic transducer; Buescher does not disclose a linear output of the preamplifier circuit. However, Buescher disclosed a transimpedance amplifier with a resistor ( $R_f$ ) (Figure 1 #16) in the preamplifier circuit. It would have been obvious to one of ordinary skill in the art at the time of invention that the resistor in the circuit allows the amplifier to take on linear gain over a wide frequency range and low noise as is well known in the art. North disclosed a post-amplifier that operates to adjust the bandwidth response and sensitivity of a communications receiver (e.g., col./line: 4/40-55). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the North linear amplifier and in the Buescher preamplifier circuit to limit bandwidth response to only that required to obtain good pulse fidelity so that less of the background noise spectrum is amplified and the input sensitivity can be kept correspondingly lower as disclosed by North (see col./line: 3/25-31).

Re claim 2,

the modified invention of Buescher and North disclosed the switch is configured to transmit the mode control signal to the preamplifier circuit in response to a received data rate control signal (North e.g., col./line: 4/30-35).

Re claims 3-5

the modified invention of Buescher and North (Figure 2) disclosed wherein the post-amplifier circuit further comprises a low-pass filter, voltage variable capacitor (222) coupled to the switch (230) (North, col./line: 5/54-65).

Re claim 11, Buescher did not disclose a housing for the circuit. However, it would have been obvious to one of ordinary skill in the art at the time of invention to use a housing for the circuit to protect it from environmental degradation. Furthermore, it is extremely well known in the art to provide housing for electronics.

4. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buescher et al. US006396351B1 (Buescher) in view of North US006118829A (North) as applied to claim 1 above, and in further view of Lee et al. US 6,362,911 (Lee).

Re claims 6-8, the modified invention of Buescher and North does not disclose a wide bandwidth signal and low bandwidth signal coupled to a multiplexer. Lee

disclosed (Figure 1) a wide bandwidth signal (output of 12a) and low bandwidth signal (output of 12b) coupled to a multiplexer (16). It would have been obvious to one of ordinary skill in the art at the time of invention to use such an arrangement in the Buescher/North invention for the benefit capable of improving receiver sensitivity as disclosed in Lee (see col./line: 2/25-32).

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Eichel US 5,166,819 disclosed a linear transimpedance amplifier.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (703) 306-0004. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

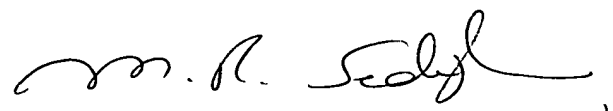
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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M.R. SEDIGHIAN

Patent Examiner

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